

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): An image display system comprising
an image data obtaining means which obtains image data consisting of three-dimensional pixel values representing an object,

a cross section designating means for designating an arbitrary cross section of the object,
a depth designating means for designating a depth perpendicular to the designated cross section,

a cross-section projected-image data generating means which generates, on the basis of the image data, cross-section projected-image data representing a cross-section projected-image obtained by projecting, onto a plane parallel to the designated cross section, averages of the pixel values arranged in the directions of depth in the region defined by the designated cross section and the designated depth including the designated cross section,

an image processing condition setting means which sets image processing conditions on the basis of the designated depth,

an image processing means which carries out image processing on the cross-section projected-image data on the basis of the image processing conditions set by the image processing condition setting means, and

a display means which displays an image on the basis of the cross-section projected-image data processed by the image processing means.

2. (original): An image display system as defined in Claim 1 in which said image processing condition setting means sets the image processing conditions on the basis of the kind of the object represented by the image data.

3. (original): An image display system as defined in Claim 2 in which said image processing condition setting means sets the image processing conditions also on the basis of the purpose of observation of the cross-section projected-image.

4. (original): An image display system as defined in Claim 3 in which the image data is three-dimensional CT data.

5. (original): An image display system as defined in Claim 2 in which the image data is three-dimensional CT data.

6. (original): An image display system as defined in Claim 1 in which said image processing condition setting means sets the image processing conditions on the basis of the purpose observation of the cross-section projected-image.

7. (original): An image display system as defined in Claim 6 in which the image data is three-dimensional CT data.

8. (original): An image display system as defined in Claim 1 in which the image data is three-dimensional CT data.

9. (original): An image display system as defined in Claim 1 in which the image data represents a medical image.

10. (original): An image display system as defined in Claim 1 in which the image processing includes at least one of gradation processing for adjusting the density level or contrast of the image and frequency processing for enhancing components in a particular frequency band.

11. (original): An image display system comprising
an image data obtaining means which obtains image data consisting of three-dimensional pixel values representing an object,

a cross section designating means for designating an arbitrary cross section of the object,
a depth designating means for designating a depth perpendicular to the designated cross section,

a cross-section projected-image data generating means which generates, on the basis of the image data, cross-section projected-image data representing a cross-section projected-image obtained by projecting, onto a plane parallel to the designated cross section, averages of the pixel values arranged in the directions of depth in the region defined by the designated cross section and the designated depth including the designated cross section,

an image processing condition setting means which sets image processing conditions on the basis of analysis of the cross-section projected-image data,

an image processing means which carries out image processing on the cross-section projected-image data on the basis of the image processing conditions set by the image processing condition setting means, and

a display means which displays an image on the basis of the cross-section projected-image data processed by the image processing means.

12. (original): An image display system as defined in Claim 11 in which said image processing condition setting means sets the image processing conditions on the basis of the kind of the object represented by the image data.

13. (original): An image display system as defined in Claim 12 in which said image processing condition setting means sets the image processing conditions also on the basis of the purpose of observation of the cross-section projected-image.

14. (original): An image display system as defined in Claim 13 in which the image data is three-dimensional CT data.

15. (original): An image display system as defined in Claim 12 in which the image data is three-dimensional CT data.

16. (original): An image display system as defined in Claim 11 in which said image processing condition setting means sets the image processing conditions on the basis of the purpose of observation of the cross-section projected-image.

17. (original): An image display system as defined in Claim 16 in which the image data is three-dimensional CT data.

18. (original): An image display system as defined in Claim 11 in which the image data is three-dimensional CT data.

19. (original): An image display system as defined in Claim 11 in which the image data represents a medical image.

20. (original): An image display system as defined in Claim 11 in which the image processing includes at least one of gradation processing for adjusting the density level or contrast of the image and frequency processing for enhancing components in a particular frequency band.

21. (new). An image display system of claim 1, wherein the processing includes at least one of frequency processing with differently weighted edges and histogram analysis of pixel values in the cross-section projection image data.

22 (new). An image display system of claim 21, wherein the image condition processing means sets the image processing conditions on the basis of the cross-section projected-image obtained by projecting.

23 (new). An image display system of claim 1, wherein the cross-section projected-image data generating means obtains data of multiple planes parallel to the designated cross section, and from the data of the multiple planes, determines the averages of the pixels values arranged in the directions of depth, said averages corresponding to adjacent values in the depth direction.